



Nerve Agents

Chemical Stockpile Emergency Preparedness Program

Deseret Chemical Depot stores liquid nerve agents that could hurt you in a chemical stockpile accident. Nerve agents were created as a military weapon to kill. They interfere with what the nerves tell the body to do and can cause you to stop breathing and die. It is important to **immediately** take shelter in a sealed room or leave the area to protect yourself if you are instructed to do so.

How can I be hurt?

It would take an accident such as an explosion or a fire. In a fire, most of the nerve agent would burn up, but some would stay in the smoke. Emergency officials call this smoky cloud and the invisible parts around it “the plume.”

As the plume drifts away from the scene of the accident, small drops of nerve agent may fall to the ground. These small drops are called the *aerosol*. The *aerosol* can hurt you if it falls on you or if you touch, eat or drink something that the *aerosol* has contaminated. This is very unlikely because the *aerosol* is heavy and quickly falls out of the plume close to the accident site.

As the plume travels from the accident, some tiny parts of nerve agent, called *vapor*, stay in the plume. If you breathe the *vapor*, it can hurt you. Because the *vapor* travels farther from the accident than the *aerosol*, it is the greater danger to you. However, the *vapor* becomes less harmful the farther the *plume* travels. That’s because wind mixes clean air with the contaminated air as the plume travels. The clean air dilutes the agent until it is no longer harmful.

Think of it this way. Like nerve agent, perfume in a bottle is liquid. When you spray it, the liquid becomes an *aerosol*. If you spray the perfume on yourself, drops will cling to your skin, hair and clothes. If you are on the other side of the room or if you spray the perfume away from yourself, the *aerosol* drops won’t touch your skin or clothing but you still smell the fragrance. That fragrance is the *vapor*. However, you can’t see or smell nerve agent *vapor* because it is invisible and has no odor.

How will I know if I've been exposed?

If you breathe nerve agent, mild to moderate symptoms may range from dim vision, eye pain, headache and runny nose to chest tightness and difficulty breathing. Nerve agent vapor on your skin may result in sweating or muscle twitching and weakness. Breathing very high concentrations of nerve agent may cause you to black out or stop breathing. The severity of exposure depends on how much agent is in the *vapor* and how long you are around it.

If you were outside before taking shelter or leaving the area and think you may have been exposed to nerve agent, there are several things you can do. If you are in a sealed shelter, take off at least your outer clothes, put them in a plastic bag and seal the bag. If water is available in the shelter, wash or take a cool to warm (not hot) shower, using lots of soap and water. Do not put soap in your eyes; just use lots of water. If you leave the area, tell responders or medical staff at your destination that you may have been exposed. They are trained to help you. Tell emergency responders about the sealed bag so that they can arrange for its safe removal after the emergency.

If you have symptoms of nerve agent exposure, call for medical help immediately and follow those instructions. Don’t ventilate or leave your sealed shelter until you are told to do so. Remember, avoiding the nerve agent vapor always should be your primary goal.